THAT WHICH IS CLAIMED IS:

1. A method for medical treatment comprising:

applying to tissue, cells, or medical devices an aqueous solution comprising a polymerizable biodegradable polymer mixture, said mixture comprising a first derivatized polysaccharide of dextran and a second derivatized polysaccharide of hyaluronan; and,

polymerizing the derivatized polymers onto a tissue, cell, or medical device wherein the derivatized dextran portion of the resulting gel comprises a water-soluble region and the derivatized hyaluronan comprising a portion that can be degraded by enzymes.

2. The method according to claim 1 wherein the treatment of a medical condition is selected from the group consisting of a controlled drug delivery, coating an implant, coating cells, coating medical devices for insertion into a patient, and providing a support for tissue.

3. The method according to claim 1 wherein said medical device is selected from the group consisting of vascular grafts, arterial vessels, dilatory stents, and catheters.

4. A hydrogel comprising:

a matrix comprising a first derivatized polysaccharide cross-linked with a second derivatized polysaccharide, wherein only one of the first and second derivatized polysaccharides is enzymatically degradable, the weight ratio of the first and second derivatized polysaccharides ranging from about 20:80 to about 80:20.

5. The hydrogel according to claim 4 wherein the first derivatized polysaccharide is derivatized dextran and the second derivatized polysaccharide is derivatized hyaluronan.

6. A hydrogel according to claim 5 wherein said derivatized dextran molecules further comprises an acroloyl-dextran.

7. The hydrogel according to claim 5 wherein said derivatized hyaluronan molecules further comprises an acryloyl-hyaluronan molecule.

8. The hydrogel according to claim 4 wherein said first derivatized polysaccharide comprises acryloyl-dextran and said second derivatized polysaccharide comprises acryloyl-hyaluronan.

9. The hydrogel according to claim 4 wherein said hydrogel further comprises a biological agent physically bound within said matrix.

10. The hydrogel according to claim 9 wherein said biological agent comprises living cells.

11. The hydrogel according to claim 9 wherein said biological agent comprises a pharmacological agent.

12. The hydrogel according to claim 4 wherein said hydrogel further comprises a pharmacological agent covalently bonded to at least one of said first derivatized polysaccharide or said second derivatized polysaccharide.

13. A hydrogel matrix of cross-linked polysaccharides consisting essentially of an acryloyl-dextran cross-linked with an acryloyl-hyaluronan.